

L 36353-66

ACC NR: AP6017580

quality of the concave surface of the paraboloid was somewhat worse than that of the convex surface. It was impossible to make the concave surface as smooth as the convex one. The experimental focal distance agreed well with the calculated one. It is concluded that rotation of a two-layer liquid makes it possible to prepare optically accurate high-temperature solar concentrators of arbitrary diameter without appreciable loss of material. Orig. art. has: 2 figures and 17 formulas.

SUB CODE: ^{09/}13/ SUBM DATE: 07Sep65/ ORIG REF: 001/ OTH REF: 005

Card

2/2

45

L 02456-67 EWT(1)/T IJP(c) — AT

ACC NR: AP6018086

(A)

SOURCE CODE: UR/0377/65/000/005/0026/0028

AUTHOR: Umarov, G. Ya. (Candidate of physico-mathematical sciences); Zhadrayev, U. Zh.

ORG: Physico-Technical Institute, AN UzSSR (Fiziko-tehnicheskii institut AN UzSSR)

TITLE: Permissible values of air pressure in inflated (vacuum) film solar ^{2/}concentrators

SOURCE: Geliotekhnika, no. 5, 1965, 26-28

TOPIC TAGS: solar energy conversion, shell structure, elastic deformation, applied mathematics, gas pressure, metal film

ABSTRACT: The problem of evaluating the values of the permissible air pressures in a chamber as a function of the initial state of the metallized film and the concentration of the solar rays at the focal point is discussed. The authors set up the pertinent formulas for a stressed metallized synthetic film (assumed absolutely flexible) under the action of gas pressure (V. I. Feodos'yev, *Uprugiye elementy tochnogo priboro-stroyeniya*, Moscow, Oborongiz, 1949). He concludes that the initial position of the metallized film determines the subsequent value of the permissible air pressure P_{max} in the chamber and the maximum concentration of the solar rays at the focal point or the optimum gas pressure in the chamber. Orig. art. has: 2 figures.

SUB CODE: 10,20/

SUBM DATE: 06Jul65/

ORIG REF: 004

Card 1/1 *gd*

L 44686-66 EWT(d)/EWT(1)/EWT(m)/EWP(k)/EWP(h)/T-2/EWP(v)/EWP(t)/ETI/EWP(1)
 ACC NR: AP6005375 (N) SOURCE CODE: UR/0413/66/000/001/0120/0120

AUTHORS: Umarov, G. Ya.; Alimov, A. K.; Oveshkin, N. P.

ORG: none

TITLE: Rapid-action electrodynamic membrane valve.²³ Class 47, No. 177720

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 120

TOPIC TAGS: valve, vacuum technology, gas flow

ABSTRACT: This Author Certificate presents a rapid-action electrodynamic membrane valve (after Author Certificate No. 128243) for delivering a small dose of gas into a high-vacuum chamber. The valve is provided with a closing mechanism consisting of a metallic membrane mounted above a spiral. To open the valve for a short interval of time, electric current from a discharging condenser is passed along the spiral. To be mounted on a long vacuum chamber for radial injection of gas into a cylinder, the valve carries a perforated plate membrane. The latter is held at the edges with pressing and adjusting bars and is fixed in the central part by elastic stiffener rings. (see Fig. 1). These rings are located at the outlet of the vacuum duct. This outlet has lateral openings through which gas may pass into the cylinder. The outlet nipple passes through the central openings in the membrane and in the base of the casing to which it is attached.

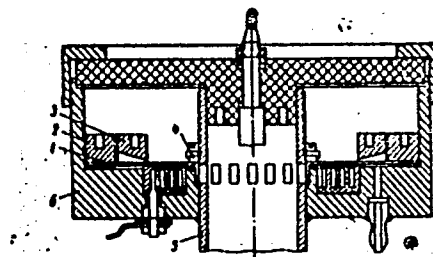
Card 1/2

UDC: 621.646.86--278

L 44006-00

ACC NR: AP6005375

Fig. 1. 1 - plate membrane; 2 - holding ring;
3 - adjusting ring; 4 - elastic ring;
5 - outlet of vacuum duct; 6 - casing



Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 23Dec63

hs

Card 2/2

ACC NR: AP6031015 (A) SOURCE CODE: UR/0167/66/000/004/0063/0065

AUTHOR: Umarov, G. Ya.; Alimov, A. K.

ORG: Physico-Technical Institute, AN UzSSR (Fiziko-tekhnicheskiy institut AN UzSSR)

TITLE: A rapid-acting electrodynamic pulsed valve for peripheral admission of gas to a vacuum chamber

SOURCE: AN UzSSR. Izvestiya. Seriya tekhnicheskikh nauk, no. 4, 1966, 63-65

TOPIC TAGS: valve, vacuum chamber, electrodynamics, pulsed magnetic field ~~gas valve~~

ABSTRACT: By contrast with the conventional types of plate valves, this new electrodynamic pulsed valve is equipped with a spring-loaded center-hole plate in an elastically deformed state which assures its airtightness. The operation of this valve is based on the electrodynamic interaction between currents from the metal-disk plate of the valve and a pulsed coil located beneath this plate, through which the capacitor discharge current is passed; this interaction causes the plate to rise and radially admit gas into the system. The principal work part is the center-hole steel plate 7 (Fig. 1). The central part of this plate may rise while its rim is held in a fixed position by clamping ring 6. As a result, when the valve is open, gas enters

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ACC NR: AP6031015

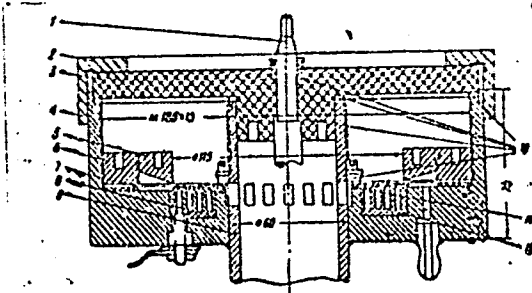


Fig. 1.

the system via a row of radial orifices in the cylindrical chamber 9. Control ring 5 causes the plate to be elastically deformed. Base 4 of the valve is airtightly welded to the vacuum cylinder. Packing 11 below the valve plate consists of teflon. In its central part the packing of the plate is represented by rubber ring 10. The plate is made of 65-G steel, copper-plated on both sides in order to increase the induction current arising in the plate when a pulsed magnetic field is generated in its neighborhood. Mounted underneath the plate is coil 8. The upper part of the valve is closed by means of organic-glass lid 3 with clamping nut 2. Mounted on this lid is the high-voltage electrode 1 of an electrodynamic coaxial gun. A connecting pipe for the supply of gas is welded to the valve housing. The valve control circuit can regulate the amount

Card 2/3

ACC NR: AP6031015

of energy supplied to the valve coil and to determine, with the aid of a mechanical counter, its triggering frequency. This particular valve is specially designed for installation in a long vacuum line with the object of radial injection of gas into the cylinder, as well as for utilization in coaxial plasma injectors. The duration of its open state can be smoothly regulated for from 10 to 150 μsec , and the admission of gas during that interval of time can be regulated at from $5 \cdot 10^{15}$ to $9 \cdot 10^{18}$ particles per pulse. Orig. art. has: 3 figures.

SUB CODE: 13, 20/ SUBM DATE: 12May64/ ORIG REF: 006/ OTH REF: 005

Card 3/3

ACC NR: AR6013634

SOURCE CODE: UR/0058/65/000/010/V012/V012

AUTHOR: Bondarenko, G. N.; Unarov, G. Ya.

TITLE: The conversion electron spectrum of long-lived isotopes of lutetium

SOURCE: Ref. zh. Fizika, Abs. 10V116

REF SOURCE: Tr. Tashkentsk. politekhn. in-ta, vyp. 24, 1963, 104-111

TOPIC TAGS: lutetium, conversion electron spectrum, beta decay

TRANSLATION: A β -spectrometer of the ketron type with a variable transverse magnetic field was used to measure the conversion electron spectrum of Lu^{173} and Lu^{174} isotopes present in the lutecium fraction of the products of the spallation of Ta by fast protons. The instrument allowance was 0.6% for $\omega/4\pi = 0.9\%$. Because of the thickness of the source, the half-width of lines in the 140 kev region was amplified by 1.2%. The results support the data of other authors on the decay of these isotopes.

SUB CODE: 18,20

Card 1/1

ACC NR: AP6030126

(N)

SOURCE CODE: UR/0120/66/000/004/0039/0041

AUTHORS: Gromov, K. Ya.; Mukhtasimov, F. N.; Umarov, G. Ya.

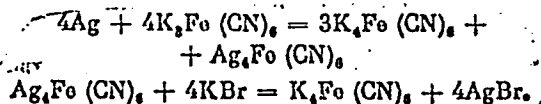
ORG: Joint Institute for Nuclear Research, Dubna (Ob'yedinennyy institut yadornykh issledovaniy)

TITLE: A method of intensifying the images of weak lines of conversion electrons, obtained with a beta spectrograph

SOURCE: Priory i tekhnika eksperimenta, no. 4, 1966, 39-41

TOPIC TAGS: conversion electron spectrum, spectrographic camera, beta decay, photographic processing, isotope, sulfur, silver compound

ABSTRACT: A method of intensifying the images of weak lines of conversion electrons, obtained with a beta spectrograph, is proposed. The work was done to increase the efficiency of photographic recording of electrons. The developed and dried plate with images of conversion electrons is soaked with distilled water at +22C and is immersed in a solution of $K_3Fe(CN)_6$ (15 g), KBr (4 g), and H_2O (300 g). The following chemical reactions take place

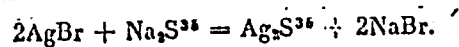


Card 1/2

UDC: 539.16

ACC NR: AP6030126

After decolorizing, the plate is washed until the yellow-green deposit disappears. It is then processed in a 0.8—0.1% solution of N_2S^{35} for 15 min. The radioactive sulfur joins the silver atoms:



The activated plate is washed in running water (for about 30 min) and dried. A fresh photographic plate is applied to the activated plate; a new, secondary image is created. The degree of intensification (attenuation) depends upon the exposure time. This method makes it possible to intensify the images of lines by a factor of at least 15. Orig. art. has: 2 formulas and 2 graphs.

SUB CODE: 20,14. SUBM DATE: 19Jul65/ ORIG REF: 003/ OTH REF: 004

Card 2/2

ACC NR: AP7004640

SOURCE CODE: UR/0288/66/000/003/0104/0105

AUTHOR: Umarov, G. Ya.; Lyutovich, A. S.; Yermatov, S. Ye.; Karimov, F. R.

ORG: Physico-technical Institute, AN UzSSR, Tashkent (Fiziko-tehnicheskii institut AN UzSSR)

TITLE: The possibility of obtaining semiconductor and difficultly fusible materials with the aid of a jet discharge

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk, no. 3, 1966, 104-105

TOPIC TAGS: thermal reactor, oxidation reduction reaction, gas discharge, high frequency discharge, *metal oxide, water cooled nuclear reactor*

ABSTRACT: A gas discharge setup (see Fig. 1) is described for deoxidizing such materials as silicon oxide and metallic oxides. The discharge in this water-cooled quartz reactor is maintained by 10-kw, 25-Mc, rf energy source and the raw materials are SiCl_4 and MoO_3 . The reactor is 75 cm long and 20 cm in diameter. When molybdenum oxide is being reduced cooling is not necessary. The discharge is started at silicon electrode progressing to the surrounding mixture of hydrogen and silicon tetrachloride. When molybdenum oxide is being reduced the electrode is made of molybdenum. Under normal conditions to reduce molybdenum trioxide to dioxide state

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UDC: 621.315.592+669.018.45+669.094.1

ACC NR: AP7004640

at 700C it is necessary to maintain the discharge for 2--3 hr. In this setup, however, after 5--7 min of deoxidation the oxygen content is reduced by 25%. Silicon powder is collected on the walls of the quartz tube during discharge. When hydrogen flow is 20 liter/min and that silicon tetrachloride is 200 ml/hr, 40% of applied silicon is collected on the tube walls. Orig. art. has: 1 figure and 1 table.

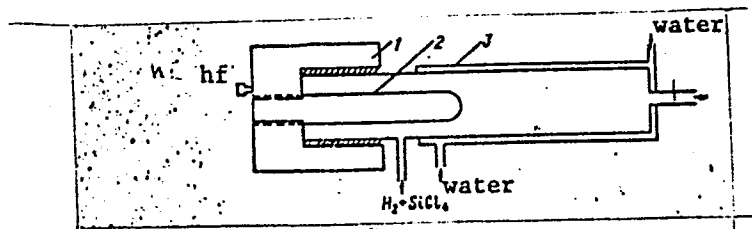


Fig. 1. Quartz reactor
1 - base, 2 - electrode, 3 - quartz reactor

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 001

Card 2/2

USSR / Farm Animals. Silkworm.

Q-6

Abs Jour: Ref Zhur-Biol., No 12, 1958, 54889.

Author : Umarov, K.

Inst : Not given.

Title : Luminescent Analysis in the Biology of the Mulberry-Feeding Silkworm.

Orig Pub: Uch. zap. Andizhansk. ped. in-ta, 1955, vyp. 2, 133-139.

Abstract: The technique of luminescent analysis of the cocoons of the mulberry-feeding silkworm is described. The cocoons of the White Cocoon mono-, bi-, and polyvoltine breeds and their hybrids produce three principal types of luminescence: blue-violet, yellow, and yellow-violet, with the intensity of fluorescence from 0 to 94%. The most valuable, naturally

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USSR / Farm Animals. Silkworm.

Q-6

Ats Jour: Ref Zhur-Biol., No 12, 1958, 54889.

Abstract: white, cocoons emit an intense blue-violet luminescence. The presence of the cocoons of yellow luminescence among the White Cocoon breeds and their hybrids constitutes an undesirable trait in the breeds and their crosses. The yellow pigment disappears in the process of the production of the tissue, but in dyeing the tissue becomes striped. Luminescent analysis may be used at breed-research stations for the purpose of evaluation of the qualities of the new White Cocoon breeds.

Card 2/2

COUNTRY : USSR B
 CATEGORY : General Biology.
 : Genetics. Animal Genetics.
 ABS. JOUR. : RZhBiol., No. 3, 1959, No. 9743
 AUTHOR : ~~Marov, K.~~
 : Andishanskiy State Pedagogical Institute.
 : The Inheritance of the Cocoons' Blue-Violet
 : Luminescence and Its Being Influenced by
 : External Factors.
 ORIG. PUB. : Uch.zap. Andishansk. gos. ped. in-t, 1956, 3,
 : 139-149
 ABSTRACT : A selection according to the indicator of
 : violet luminescence performed for 4-5 gener-
 : ations in 7 white-cocooned newly selected
 : species (SANKHSH Nos 8, 9, 11, 17, 18, 21,
 : TASHKENT No 112) which were nearogenetic in
 : terms of the cocoons' luminescence in UV-rays,
 : produced an increase of the percentage of
 : "violet" cocoons from 16.7-54.7 to 78.4-90.4.
 : Experiments in which leaves of various de-
 : grees of ripeness or which were taken from

CARD:

h7

COUNTRY : USSR
CATEGORY :

ABS. JOUR. : RZhBiol., No. 1959, No.

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : top shoots and radical undergrowth were fed, and other experiments in which the complex of hydrothermal conditions characterized by so-called "speedy" and "usual" methods of feeding was used, leads the author to the conclusion that when younger leaves which have a smaller "coefficient of hardness", or radical undergrowth leaves are fed and also when the speedy feeding method is used, the formation of pigments which conditions the violet luminiscence of cocoons becomes

Card: 2/3

UMAROV, K. A.

"Use of Fluorescent Analysis in Silkworm Breeding." Cand Agr Sci, Tashkent
Agricultural Inst, Min Higher Education USSR, Tashkent, 1954. (KL, No 5, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational
Institutions (13)

SO: Sum. No. 598, 29 Jul 55

UMAROV, Kh.U.

Variations in the oxidation-reduction processes of red clover and
timothy grass in pure and mixed stands [w.s.i.E]. Trudy Bot. inst.
Ser.4 no.14:304-311 (MIRA 14:3)
(Oxidation-reduction reaction) (Red clover)
(Timothy grass)

UMAROV, KH. U.

Dissertation defended in the Botanical Institute imeni V. L. Komarov
for the academic degree of Candidate of Biological Sciences:

"Physiological Study of Plant Interrelationships in Artificial
Synoses."

Vestnik Akad Nauk No. 4, 1963, pp. 119-145

UMAROV, Kh.U.

Variations in the respiration rate of red clover (*Trifolium pratense* L.) and timothy grass (*Phleum pratense* L.) Bot.zhur. 47
no.2:245-250 F '62. (MIRA 15:3)

1. Institut genetiki i fiziologii rasteniy AN Uzbekskoy SSR,
Tashkent.

(Red clover) (Timothy grass) (Plants--Respiration)

SOURCE: Ref. zh. Biologiya. Svoedinyay tom, Aug. 18637

AUTHOR: Umarov, Kh. .U.

TITLE: Some characteristics of photosynthesis² intensity changes in red clover and meadow timothy

CITED SOURCE: Dokl. AN UzSSR, no. 3, 1964, 52-55

TOPIC TAGS: clover, timothy, plant, photosynthesis, leaf, assimilator, agriculture

TRANSLATION: The photosynthesis dynamics of red clover and meadow timothy in pure and mixed plantings was investigated according to Tolevaya's modification of Sakai's method during 3 growing seasons (1958, 1959, and 1960) at a biological institute station in Leningrad oblast'. Photosynthesis intensity of clover was higher with unmixed planting, but no differences were found for timothy. Photosynthesis was most intense in clover during shoot formation and in timothy during the tillering and spiking periods. No direct

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L 24901-65

ACCESSION NR: AR1047776

relation was observed between photosynthesis intensity and yield for the different years. Yield was determined primarily by size of leaf assimilator surface. Productive assimilation in clover is higher with unmixed planting and is higher in timothy with mixed planting.

SUB CODE: 28

ENCL: 00

Card 2/2

UMAROV, Kh.U.

Growth, development, and productivity of plants as related
to the methods of sowing. *Uzv. biol. zhur.* 9 no. 6:24-27
'65 (MIRA 19:1)

1. Institut eksperimental'noy biologii rasteniy AN UzSSR.
Submitted March 14, 1964.

KAZIYEV, M.Z.; UMAROV, Kh.Z.

Effect of potassium fertilizers on hay yields and accumulation of the root mass of alfalfa in meadow soils of the zone of Central Asia. Pochvovedenie no.7:81-86 '60.
(MIRA 13:7)

1. Tashkentskiy sel'skokhozyaystvennyy institut.
(Tashkent Province--Alfalfa--Fertilizers and manures)
(Plants, Effect of potassium on)

UMAROV, Kh. Z., Cand Tech Sci, -- "Effect of potassium fer-
tilization ^{upon yield and} ~~on the harvest~~ chemical composition of the ~~alfalfa~~
^{of alfalfa} seed and root substance on the meadow soils of Tashkentskaya
Oblast." Tashkent, 1961. (Min of Agr ^{KSSR} ~~USSR~~. Kirgiz Agr Inst
im K. I. Skryabin) (KL, 8-61, 255)

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Encl

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